

REMARKS

In the Office Action dated September 2, 2004, claims 1-29 were pending. Claims 1-29 were rejected under 35 U.S.C. §102 and 35 U.S.C. §103.

In this response, no claim has been cancelled. Claims 1-6, 9, 12-13, 16, 18, 20-21, 23-24, and 26 have been amended. No new matter has been added. Reconsideration of this application as amended is respectfully requested.

Claims 1, 6, 9, 12, 16, 23 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Hall et al., U.S. Patent No. 5,826,023 (“Hall”). Claims 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Araujo et al., U.S. Patent No. 6,108,350 (“Araujo”).

In view of the foregoing amendments, it is respectfully submitted that claims 1-29 include the limitations that are not disclosed or claimed by the cited references. In particular, independent claim 1 recites as follows:

1. A computer implemented method comprising:
receiving at a first network element of a network a subscriber session from a subscriber;
routing at least a portion of the subscriber session to a second network element within the network using a first tunneling protocol;
determining at the second network element whether the subscriber session should be routed to a destination using a second tunneling protocol different than the first tunneling protocol; and
switching the subscriber session to the destination out of the network via the second network element using the second tunneling protocol if the subscriber session should be routed to the destination using the second tunneling protocol.

(Emphasis added)

Independent claim 1 includes limitations that a first network element of a network receiving a subscriber session from a subscriber and routing the subscriber session via a first

tunneling protocol to a second network element over the network. The second network element determines whether the subscriber session should be routed to a destination out of the network using a second tunneling protocol. If so, the second network element routes the subscriber session using the determined second tunneling protocol to the destination out of the network. It is respectfully submitted that these limitations are absent from Hall or Araujo.

Rather, Hall is related to an email server that transmits an email message over a SNADS network through a tunnel. The transmitting node encapsulates the message in a message compatible with the SNADS network and transmits the encapsulated message to a receiving node, where the receiving node decapsulates the message to recover the email message (see, Abstract and Summary of the Invention; col. 3, lines 40 to 64 of Hall). There is no mention in Hall of a network element that receives a subscriber session with a first tunneling protocol from another network element across a network and transmits the subscriber session with a second tunneling protocol to a destination out of the network.

In contrast, the present invention as claimed is related to a first network element of a network (e.g., a DSL network operated by a network provider such as telecom company) receiving a subscriber session from a subscriber and transmits the subscriber session using a first tunneling protocol to a second network element of the network (which may be located at another edge of the network). The second network element decapsulates the subscriber session according to the first tunneling protocol and determines which tunnel protocol is required by the destination. Once the second tunneling protocol is determined to be used for the destination of the subscriber session, the second network element encapsulates the subscriber session using the second tunneling protocol and transmits the encapsulated subscriber session to the destination out of the network (e.g., from a provider network into a service provider network such as ISP). That is, the second network element performs

decapsulation of the subscriber session according to the first tunneling protocol and performs encapsulation of the subscriber session according to the second tunneling protocol before transmitting out to the destination. It is respectfully submitted that these limitations are absent from Hall.

It appears that the transmitting node of Hall only performs encapsulation and the receiving node of Hall only performs decapsulation. There is no mention in Hall of transmitting a subscriber session using a first tunneling protocol from first network element to a second network element over a network and the subscriber session is transmitted out of the network using a second tunneling protocol to the destination of another network.

It is respectfully submitted that Hall and the present invention as claimed are dealing with significantly different problems and their approaches are significantly different. Hall is related to an email server and a variety of email clients, while the present invention as claimed is related to interfacing between one network (e.g., provider network such as DSL network) to another network (e.g., ISP network).

It is respectfully submitted that Araujo also fails to disclose the limitations set forth above. Therefore, for the reasons set forth above, it is respectfully submitted that independent claim 1 is not anticipated by Hall or Araujo.

Similarly, independent claims 6, 9, 12, 16, 20, 23, and 26 include limitations similar to those discussed above. Thus, for the reasons similar to those discussed above, it is respectfully submitted that independent claims 6, 9, 12, 16, 20, 23, and 26 are also not anticipated by Hall or Araujo.

Given the rest of the claims depend from one of the above independent claims, it is respectfully submitted that the rest of the claims are not anticipated by Hall or Araujo. Withdrawal of the rejections is respectfully submitted.

Claims 2-5, 7, 8, 10, 11, 13-15, 17-19, 24, 25 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall et al., U.S. Patent No. 5,826,023 (“Hall”) in view of Sitaraman et al., U.S. Patent No. 6,212,561 (“Sitaraman”).

Claims 2-5, 7, 8, 10, 11, 13-15, 17-19, 24, 25 and 27-29 depend from one of the above independent claims. For the reasons similar to those set forth above, it is respectfully submitted that Sitaraman fails to disclose the limitations set forth above.

In addition, there is no suggestion within Hall and Sitaraman to combine with each other. Hall is related to an email server, while Sitaraman is related to forcing an authorized user to disconnect from an open connection to other public or private domains or network before a connection with the owners domain or network can be established. It is respectfully submitted that one with ordinary skill in the art would not combine these two references. Even if they were combined, such a combination still lacks the limitations set forth above.

Therefore, the present invention as claimed is patentable over Hall in view of Sitaraman.

In addition, with respect to claim 2, claim 2 discloses that the AAA associated with the subscriber further includes information regarding which of the tunneling protocols will be used to transmit the subscriber session to the destination out of the network. The second network element determines a proper tunnel protocol (e.g., the second tunneling protocol) based on the AAA information associated with the subscriber and uses the determined tunneling protocol to transmit the subscriber session to the destination. It is respectfully submitted that Sitaraman fails to disclose such a limitation.

Although Sitaraman discloses an AAA module 114, the purposes of the AAA module 114 are to authenticate a client 102 when the client 102 logs in (see, col. 2, lines 18 to 49 of

Sitaraman). There is mention of Sitaraman that the AAA information also includes which of the tunneling protocol to be used.

Further, with respect to claims 4-5, when the second network element cannot handle the first tunneling protocol or the second tunneling protocol, the second network remotely invokes a decapsulation or an encapsulation process from a remote network element within the network to process the subscriber session. It is respectfully submitted that these limitations are also absent from Hall or Sitaraman.

Examiner contends that sections of col. 8, lines 60-61 and col. 9, lines 20-21 of Sitaraman disclose such limitations (see, pages 8-9 of the Office Action). Applicant respectfully disagrees. The sections cited by the Examiner merely mention the term of encapsulation or decapsulation. However, the cited sections fail to disclose or suggest the limitations set forth above.

Therefore, in addition to those applied to their independent claims, it is respectfully submitted that these claims are independently patentable over Hall in view of Sitaraman. Withdrawal of the rejections is respectfully requested.

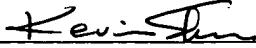
In view of the foregoing, Applicants respectfully submit the present application is now in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned attorney at (408) 720-8300.

Please charge Deposit Account No. 02-2666 for any shortage of fees in connection with this response.

Respectfully submitted,

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